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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/020,349	12/11/2001	Gennaidy Poberezhskiy	ST0027USU	1645

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02/21/2006

THE ECLIPSE GROUP
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EXAMINER

RAMAKRISHNAIAH, MELUR

ART UNIT	PAPER NUMBER
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2643

DATE MAILED: 02/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/020,349	POBEREZHSKIY ET AL.	
	Examiner	Art Unit	
	Melur Ramakrishnaiah	2643	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>3-6-2002</u> . | 6) <input type="checkbox"/> Other: _____ |

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-2, 5, are rejected under 35 U.S.C. 103(a) as being unpatentable over Serfaty et al. (US PAT: 6,081,702, hereinafter Serfaty) in view of Krasner (US PAT: 6,064,336).

Regarding claim 1, Serfaty discloses an apparatus for estimating frequency errors in locally generated clock signal for receivers, comprising: a local oscillator (9, fig. 1) for generating a clock signal and a sampling clock, a sampling block (reads on 8, fig. 1) coupled to the local oscillator, for receiving a reference signal and the sampling clock and for generating reference sample signals, and a local oscillator frequency error estimator (10, fig. 1), for generating an error estimate between the reference signal and local oscillator sampling clock (figs. 1-2, col. 1, line 66 – col. 3, line 22).

Regarding claim 5, Serfaty discloses a method of calibrating a local oscillator in a mobile receiver, comprising: receiving a reference signal from a source (2, fig. 1) providing the reference signal, sampling the reference signal and the clock signal from the local oscillator (9, fig. 1) and providing a second reference signal, and estimating the error in the local oscillator using the second reference signal (figs. 1-2, col. 1, line 66 – col. 3, line 22).

Serfaty differs from claims 1, 5 in that he does not explicitly disclose GPS receiver for processing signals.

However, Krasner discloses GPS receiver utilizing a communication link which teaches the following: GPS receiver for processing signals (fig. 6A, col. 12, line 46 – col. 13, line 18).

Thus, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify Serfaty's system to provide for the following: GPS receiver for processing signals as this arrangement would provide means to receive and process GPS signals as thought by Krasner.

Regarding claim 2, Serfaty further teaches the following: error estimate approximates a frequency difference between the reference signal and the clock signal (col. 2 lines 29-37).

3. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Serfaty in view of Krasner as applied to claim 1 above, and further in view of Jasper (US PAT: 4,701,934).

Regarding claim 3, the combination does not teach the following: sampling block comprises a block selected from a dedicated analog-to-digital converter and integrated (IC) input pin.

However, Jasper discloses method of Doppler searching in a digital GPS receiver which teaches the following: sampling block comprises a block selected from a dedicated analog-to-digital converter (fig. 1, col. 6 lines 7-10).

Thus, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify the combination to provide for the following: sampling block comprises a block selected from a dedicated analog-to-digital converter and integrated (IC) input pin as this arrangement would provide one of the methods of sampling, among many possible methods, the signal as taught by Jasper

4. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Serfaty in view of Krasner and Jasper as applied to claim 3 above, and further in view of Chalmers et al. (US PAT: 5,272,446, hereinafter Chalmers).

Regarding claim 4, the combination does not teach the following: oscillator frequency estimator is selected from a group comprising a discrete fourier transform, a frequency detector, and a phase detector.

However, Chalmers discloses digitally implemented fast frequency estimator/demodulator which teaches the following: frequency detector (reads on frequency estimator) using discrete Fourier transform (see abstract).

Thus, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify the combination to provide for the following: oscillator frequency estimator is selected from a group comprising a discrete Fourier transform, a frequency detector, and a phase detector as this arrangement would provide well known means of estimating frequency as thought by Chalmers.

5. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Serfaty in view of Krasner as applied to claim 5 above, and further in view of Evans et al. (US PAT: 6,240,556, hereinafter Evans).

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Regarding claim 6, the combination does not teach the following: sampling and estimating are performed by software instructions to a microprocessor.

However, Evans discloses subscriber frequency control system which teaches the following: sampling and estimating are performed by software instructions to a microprocessor (see abstract and col. 4 lines 50-57).

. Thus, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify the combination to provide for the following: sampling and estimating are performed by software instructions to a microprocessor as this arrangement would provide another well known method of implementing frequency error estimation as taught by Evans.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melur Ramakrishnaiah whose telephone number is (703) 305-1461. The examiner can normally be reached on M-F 6:30-4:00; every other F Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curtis Kuntz can be reached on (703)305-4708. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Melur Ramakrishnaiah
Primary Examiner
Art Unit 2643